AMENDMENT TO THE CLAIMS

Please cancel claims 33-38.

Please amend claim 20 as shown below.

1. (Original) A method of processing contrast enhanced medical imaging information, the medical imaging information corresponding to a time dependent imaging signal behavior associated with at least one tissue volume, the method comprising:

automatically determining whether a portion of a tissue volume exhibits an imaging signal washout behavior;

automatically determining whether the portion of a tissue volume exhibits one from the group of an imaging signal plateau behavior and an imaging signal persistent enhancement behavior in the event that the portion of a tissue volume fails to exhibit an imaging signal washout behavior; and

identifying at least one likely malignancy within the portion of the tissue volume.

2. (Original) The method of claim 1, wherein identifying comprises generating a visual indication of a type of time dependent imaging signal behavior corresponding to the portion of a tissue volume.

3. (Original) The method of claim 1, wherein the medical imaging information comprises Magnetic Resonance Imaging data.

4. (Original) The method of claim 1, wherein the medical imaging information corresponds to a breast.

5. (Original) A method of processing contrast enhanced medical imaging information, the medical imaging information comprising imaging signal intensity values associated with at least one candidate voxel set corresponding to a tissue volume, the method comprising:

automatically determining whether a candidate voxel set exhibits an imaging signal washout behavior;

automatically determining whether a candidate voxel set exhibits one from the group of an imaging signal plateau behavior and an imaging signal persistent enhancement behavior in the event that a candidate voxel set fails to exhibit an imaging signal washout behavior; and

identifying a candidate voxel set as a likely malignancy.

6. (Original) The method of claim 5, wherein determining whether a candidate voxel set exhibits an imaging signal washout behavior comprises determining whether a signal enhancement ratio corresponding to a candidate voxel set exceeds a washout threshold value.

7. (Original) The method of claim 6, wherein the washout threshold value is approximately equal to 1.1.

8. (Original) The method of claim 5, wherein determining whether a candidate voxel set exhibits an imaging signal washout behavior comprises determining whether a slope corresponding to a candidate voxel set is less than a washout slope value.

9. (Original) The method of claim 8, wherein the washout slope value is approximately equal to –2.0 percentage units per minute.

10. (Original) The method of claim 5, wherein determining whether a candidate voxel set exhibits an imaging signal washout behavior comprises determining whether an angle corresponding to a candidate voxel set is less than a washout angle value.

11. (Original) The method of claim 10, wherein the washout angle value is approximately equal to –5 degrees.

12. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises identifying a highest percent enhancement value corresponding to a candidate voxel set.

13. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises identifying a most significant imaging signal intensity decline corresponding to a candidate voxel set.

14. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises identifying a most significant rate of imaging signal intensity decline corresponding to a candidate voxel set.

15. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises generating at least one from the group of a numerical, a textual, a chromatic, and a graphic indication of the likely malignancy.

16. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises generating upon a display device an indication of the likely malignancy.

17. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises visually indicating a type of curve representing a time dependent imaging signal behavior that corresponds to the candidate voxel set.

18. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises displaying one from the group of a washout curve, a plateau curve, and a persistent enhancement curve.

19. (Original) The method of claim 5, wherein determining whether a candidate voxel set exhibits an imaging signal plateau behavior comprises determining

whether a signal enhancement ratio corresponding to a candidate voxel set is less than a first threshold value and greater than a second threshold value.

20. (Currently Amended) The method of claim ~~20~~19, wherein the first threshold value is approximately equal to 1.1, and the second threshold value is approximately equal to 0.9.

21. (Original) The method of claim 5, wherein determining whether a candidate voxel set exhibits an imaging signal plateau behavior comprises determining whether a slope corresponding to a candidate voxel set is less than a first slope value and greater than a second slope value.

22. (Original) The method of claim 21, wherein the first slope value is approximately equal to 2 percentage units per minute and the second slope value is approximately equal to –2 percentage units per minute.

23. (Original) The method of claim 5, wherein determining whether a candidate voxel set exhibits an imaging signal plateau behavior comprises determining whether a slope corresponding to a candidate voxel set is less than a first angle value and greater than a second angle value.

24. (Original) The method of claim 23, wherein the first angle value is approximately equal to 5 degrees and the second angle value is approximately equal to –5 degrees.

25. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises identifying a flattest imaging signal intensity relative to a time period.

26. (Original) The method of claim 5, wherein identifying a candidate voxel set as a likely malignancy comprises identifying a most strongly enhancing imaging signal intensity relative to a time period.

27. (Original) The method of claim 5, wherein determining whether a candidate voxel set exhibits an imaging signal persistent enhancement behavior is performed in the event that a candidate voxel set fails to exhibit an imaging singal washout behavior and a candidate voxel set fails to exhibit an imaging signal plateau behavior.

28. (Original) The method of claim 5, wherein the medical imaging information comprises Magnetic Resonance Imaging data.

29. (Original) The method of claim 5, wherein the medical imaging information corresponds to a breast.

30. (Original) A method of processing contrast enhanced medical imaging information, the medical imaging information comprising imaging signal intensity values associated with at least one candidate voxel set corresponding to a tissue volume, the method comprising:

automatically determining whether a candidate voxel set exhibits an imaging signal washout behavior;

automatically determining whether a candidate voxel set exhibits an imaging signal plateau behavior after determining whether a candidate voxel set exhibits an imaging signal washout behavior; and

identifying a candidate voxel set as a likely malignancy.

31. (Original) A method of processing contrast enhanced medical imaging information, the medical imaging information comprising imaging signal intensity values associated with at least one candidate voxel set corresponding to a tissue volume, the method comprising:

automatically determining whether a candidate voxel set exhibits an imaging signal washout behavior;

identifying a candidate voxel set as a likely malignancy corresponding to a washout behavior in the event that a candidate voxel set exhibits an imaging signal washout behavior;

automatically determining whether a candidate voxel set exhibits an imaging signal plateau behavior in the event that a candidate voxel set fails to exhibit an imaging signal washout behavior; and

identifying a candidate voxel set as a likely malignancy corresponding to a plateau behavior in the event that a candidate voxel set fails to exhibit an imaging signal washout behavior and exhibits an imaging signal plateau behavior.

32. (Original) The method of claim 31, further comprising identifying a candidate voxel set as a likely malignancy corresponding to a persistent enhancement behavior in the event that a candidate voxel set fails to exhibit an imaging signal washout behavior and a candidate voxel set fails to exhibit an imaging signal plateau behavior.

33-38. (Canceled)

39. (Original) A computer readable medium containing program instructions for:

automatically determining whether a candidate voxel set that forms a portion of a medical imaging data set corresponding to a tissue volume exhibits an imaging signal washout behavior;

automatically determining whether a candidate voxel set that forms a portion of a medical imaging data set exhibits one from the group of an imaging signal plateau behavior and an imaging signal persistent enhancement behavior in the event that a candidate voxel set fails to exhibit imaging signal washout behavior; and

identifying a candidate voxel set as a likely malignancy.

40. (Original) The computer readable medium of claim 39, wherein the program instructions for determining whether a candidate voxel set exhibits an imaging signal washout behavior comprise program instructions for performing at least one from the group of a signal enhancement ratio analysis, an imaging signal intensity change analysis, and an imaging signal rate of intensity change analysis.

41. (Original) The system of claim 39, wherein the program instructions for determining whether a candidate voxel set exhibits an imaging signal plateau behavior comprise program instructions for performing at least one from the group of a signal enhancement ratio analysis, an imaging signal intensity change analysis, and an imaging signal rate of intensity change analysis.

42. (Original) The computer readable medium of claim 39, wherein the program instructions for identifying a candidate voxel set as a likely malignancy comprise program instructions for performing at least one from the group of a percent enhancement value analysis, an imaging signal intensity change analysis, and an imaging signal rate of intensity change analysis.

43. (Original) The computer readable medium of claim 39, wherein the program instructions for identifying a candidate voxel set as a likely malignancy comprise program instructions for generating at least one from the group of a numerical, a textual, a chromatic, and a graphic indication of the likely malignancy.

44. (Original) The computer readable medium of claim 39, wherein the program instructions for identifying a candidate voxel set as a likely malignancy comprise program instructions for displaying a curve corresponding to the candidate voxel set.